

The Montana Natural Resource Information System 2002 Report



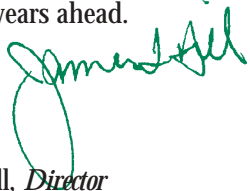
Dear Friends:

This is truly an exciting time for Montana's Natural Resource Information System (NRIS). Montana citizens, whether they are business owners looking for an economic advantage to make their company viable in a tough economy, government employees attempting to accomplish more with fewer resources, private citizens desiring to participate more fully in their government, or tourists needing current information on hunting, fishing, or wildfire status - all have a real and growing need for access to government information. Happily, this growing dependence on government information comes at a time when NRIS is better prepared than ever to serve such diverse needs.

Simply put, we use smart technologies to make a broad range of vital geographic information available to Montana agriculture, businesses, citizens, and visitors. While there is nothing simple about what goes on behind the scenes to make it all happen, access to a wealth of information about Montana has never been simpler. Our small but highly dedicated staff has learned to make the most of the latest tools to serve information to the widest audience, but is also ready and willing to provide personalized service to those who need it.

In addition, because NRIS provides a centralized repository for government information accessible to all (including the very agencies that generate the data), the need to build similar programs elsewhere is reduced, resulting in considerable cost savings. Other agencies can concentrate their resources on accomplishing their respective mandates and leave the job of information dissemination to those who know it best - the State Library.

We at NRIS are proud of the working relationships we have developed with the many government agencies that create the information we serve. Without their willingness to make their information available through NRIS, the benefits of one-stop-shopping for information could not be realized. We are committed to continually finding innovative ways to provide more information to more people in the years ahead.



Jim Hill, *Director*

Our mission:

The Montana Natural Resource Information System provides comprehensive access to information about Montana's natural resources to all Montanans through the acquisition, storage, retrieval, and dissemination of that information in meaningful form.

Our goals:

- Acquire, integrate, maintain, and document natural resource data and information needed for understanding, managing, and utilizing Montana's natural resources and environment.
- Effectively disseminate natural resource data and information, ensuring broad accessibility, utilizing current technologies, and maintaining a strong emphasis on customer service.
- Ensure our products, services, and expertise are broadly known, effectively used, and highly regarded by those who require natural resource information and spatially referenced data.

One-stop source of natural resource information

nris.state.mt.us

Established in 1985 by the Montana Legislature, the mission of the Montana Natural Resource Information System (NRIS) is to make information on Montana's natural resources readily accessible to government agencies, business and industry, and private citizens. As a program of the State Library, NRIS provides expertise that helps people find, understand, and use natural resource-related information.

Cost efficient:

State and federal agencies generate large quantities of information on Montana's lands and natural resources, at considerable expense to taxpayers. This information is needed by government and businesses to manage Montana's resources and build a vibrant economy. Experience has shown that if existing information can't be readily located, it will be re-created, or decisions will be made without the best available information, resulting in poor decisions, wasted time and money, and unnecessary conflicts.

NRIS provides leadership and expertise in the acquisition, storage, support, and distribution of Montana's geographic data. NRIS has led the way in utilizing technology to disseminate data efficiently and to provide tools for data access, display, and analysis.

Rapid response and retrieval:

By maintaining the necessary expertise, technology and information, NRIS can quickly respond to a wide variety of needs, from firefighters during a crisis to environmental assessments for road construction and commercial development.

Recently, NRIS has focused on developing more powerful Internet tools to provide better access to information. In addition, NRIS continues to expand data sharing with federal, state, and local agencies which create natural resource data in order to provide a broad range of timely and valuable data sets to our users.

Recent Accomplishments:

- Statewide coverage of topographic maps and aerial photos.
- On-line tools, such as TopoFinder and Thematic Mapper, give users desktop access to maps and spatial data.
- Statewide soils, water rights, and weed information.

NRIS programs

As part of its mandate to provide access to natural resource and related information, the Natural Resource Information System includes two statutorily mandated programs, the Natural Heritage Program and the Water Information System.



nhp.nris.state.mt.us

The NRIS Natural Heritage Program is the state's clearinghouse for information on the status and distribution of our native animals and plants, emphasizing species of concern and high quality habitats, such as wetlands. The

Natural Heritage Program provides this information for a broad range of uses, including weed management, environmental reviews, highway construction, facility siting, growth planning, and habitat conservation. In 2001, Heritage Program staff answered more than 1000 information requests, and the program served many times that number of users with its extensive on-line resources.

Knowing where species of concern are located helps developers and land managers avoid needless impacts on valuable habitats and maintain healthy species populations, reducing the likelihood of endangerment listings. Data collected and centralized by the Natural Heritage Program has also led to the "down-ranking" of many species once

thought to be very rare or considered for listing. Because the Natural Heritage Program is linked to a network of over eighty similar programs in states, provinces, and nations throughout the Western Hemisphere, it can also bring to Montana the "big picture" on the status of species and habitats.

Recent Accomplishments:

- Statewide land stewardship map – the only up-to-date source for comprehensive mapping of public and conservation lands.
- Statewide bird distribution data – users can search for information and enter their own observations directly on the web.
- Reports on exemplary habitats and species of concern in various areas, such as Powder River County, and the Upper Yellowstone Watershed. *Visit the NHP website for more reports.*
- Joint Animal Species of Concern list with Montana Fish, Wildlife and Parks.

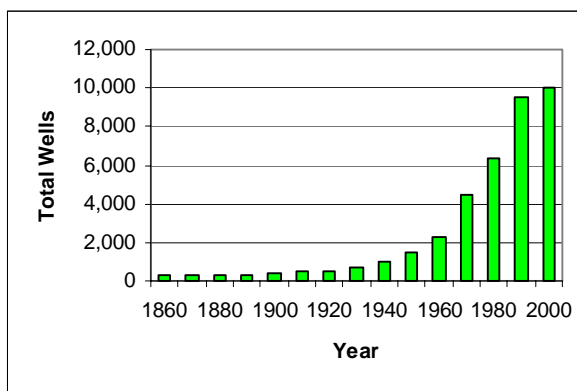




nris.state.mt.us/wis

The Water Information System (WIS) provides a broad selection of information pertaining to Montana water resources. Montanans use the WIS in a variety of ways. For example: the WIS supports state officials in writing water quality plans, managing reservoirs and stream flow, and seeking drought aid; contractors can find well logs for areas where they plan to drill; land owners are able to view their water rights information to ensure that state records are up to date; and recreational users can find real-time flow data for rafting or detailed fisheries and stocking information for angling.

The WIS provides information on Montana's streams, lakes, wetlands, wells, and aquifers. In partnership with state, federal, and non-profit organizations, the WIS provides users' access to water rights, water quality, fisheries, water supply, well and well log, and wetland information. This information can be mapped and reported in a variety of ways, and combined with other data at NRIS to meet the analytic and mapping needs of our user community. The WIS also hosts and maintains the website for the Governor's Drought Monitoring Committee.



Cumulative number of wells along Highway 93 corridor in the Bitterroot Valley.

Recent Accomplishments:

- Comprehensive drought monitoring web site for the state, drought maps, and climate data.
- Interactive web access to Department of Natural Resources and Conservation water rights information, including maps and reports.
- Web access to stream and lake data from Montana Fish, Wildlife, and Parks. Fish distribution, stocking information.
- Web access to multi-agency information on locations of water quality data collection sites.
- Web access to the Bureau of Mines and Geology's extensive well database, well logs, and water quality data.

Why is NRIS part of the Montana State Library?

The Montana State Library houses the NRIS program for two reasons: the State Library is a non-regulatory agency that provides unbiased information, and the State Library has the mission of, and expertise in, providing access to information.

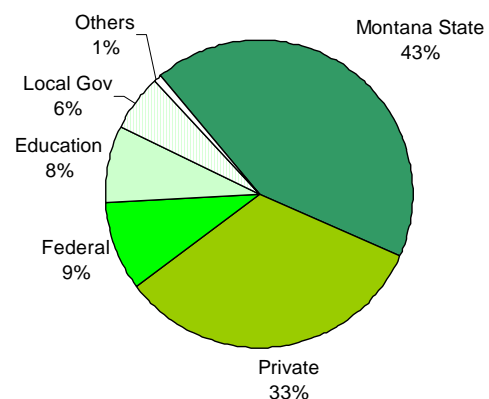
The fact that NRIS has been placed in a neutral agency encourages broad use of the system by all state agencies as well as Montana businesses and citizens. NRIS provides a broad range of services to agencies to ensure that users can access NRIS products and services as easily as they might if NRIS were a program of the user's agency.

NRIS' location in the state library also allows NRIS to concentrate on its mission of disseminating information, freeing the various agencies that utilize NRIS to concentrate on fulfilling their respective agency mandates without having to spend resources to disseminate data to other agencies or the public.

Who uses NRIS, and how?

In order to ensure that Montana's natural resource information is available to the widest possible audience, NRIS provides access to its information holdings in a variety of ways. Most of the information in the NRIS clearinghouse is made available via the Internet; however, staff assistance in locating and obtaining information is also available, and much of the information assimilated by our Natural Heritage Program is available through published reports.

Staff Assisted Requests by User Group FY 2002

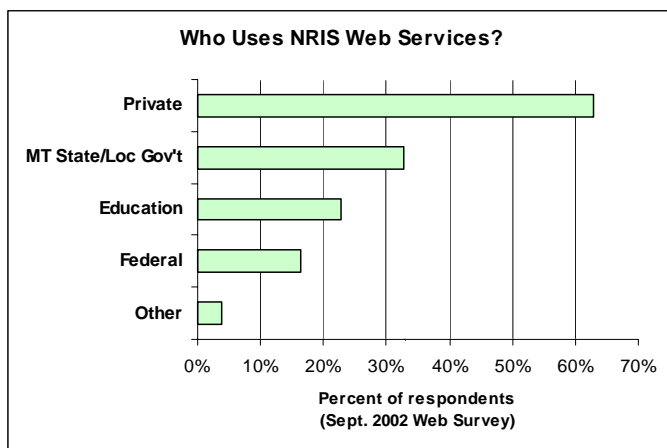


Users of NRIS' Internet-based services range from computer novices to information technology professionals, and NRIS provides information in ways that can be used by persons at both ends of the spectrum. For the Geographic Information Systems (GIS) professional, hundreds of geospatial data themes are available for download. For the technically savvy computer user, many of these same themes can be viewed on-line, along with reports summarizing related information. For novice computer users, a series of pre-formatted maps are available.

An NRIS user survey was conducted on the NRIS website throughout the month of September, 2002, to help NRIS improve its services. We learned:

- Over 63% of respondents were from the private sector.
- Over 60% of respondents visit the NRIS website at least several times per month.
- 80% said NRIS services were valuable or essential to their business, agency, or personal needs.

Over one-third of respondents use NRIS information for planning; and another third for resource management. More than half download geographic information system (GIS) data, such as stream and road information, to use in their own projects and analyses. Over half also use the NRIS TopoFinder, which allows people to view topographic maps on-line. The NRIS Water Information System is consulted by over one-third of survey respondents.



NRIS responds to thousands of inquiries each month via its website. Over one-third of the survey respondents visit the site each day or several times per week. **During the month of November, 2002, NRIS' web pages received over 51,000 visitors, who used the NRIS website for an average of 13 minutes each. That translates to 384 person-hours each day spent on the NRIS site.**

Visit nris.state.mt.us to view complete survey results.

Communication

NRIS utilizes a variety of avenues to reach our partners and the public:

- **Monthly seminars** – NRIS sponsors a monthly seminar series to offer interested individuals an opportunity to discuss advances in technology, improvements in information access and use, and other related topics.
- **Workshops and presentations** – NRIS staff offer free workshops and presentations to teach the public, government employees, users groups, and natural resources professionals how to use its new website applications.
- **Conferences and meetings** – In an effort to interact with and outreach to a cross-section of Montanans, NRIS staff participate in conferences across the state. These opportunities have included meetings of the Montana Association of Counties, and the Montana Stockgrowers Association.
- **User feedback** – NRIS is committed to providing quality data services to our users. In order to effectively evaluate the types of use and interest in our information and web applications, NRIS conducts periodic surveys.
- **Newsletters** – NRIS contributes articles to industry newsletters and journals to inform Montana professionals about NRIS programs and services. The NRIS Natural Heritage Program produces its own newsletter, *Optimolocus*, to keep readers informed about new activities and projects.
- **GIS Day** – GIS Day is an annual international event that encourages geographic information systems (GIS) users to open their doors to the public. NRIS staff use GIS Day as a way to demonstrate the importance of geography in our everyday lives by conducting interactive presentations for students and adults.



Helena fifth grader Nicole Carkeek shows off the topographical map she created on her hand during an NRIS presentation on GIS Day.

Photo credit: George Lane/Helena Independent Record

How NRIS serves Montana

“NRIS provides a wealth of accurate and accessible information that is invaluable to Montana's decision makers and business community. As we face the challenge of creating a vibrant economy comprised of traditional industry as well as new enterprises, the information NRIS provides can help us chart our course efficiently and with vision.”

***– Lt. Governor Karl Ohs,
Chair, Governor's Drought Advisory
Council***



“...When Westech can use information provided by NRIS/NHP, the client saves time and money on its project...”

***– Patrick Farmer, President
Westech Environmental Services, Inc.***

“...local planning departments throughout the state give the NRIS/Heritage Program a BIG PLUS...”

***– Randy Gray, Mayor
City of Great Falls***

“...We really saw the power of interactive web applications during the fire season of 2000. That's when NRIS and our FWP Conservation Education Division staff developed the Fire Page for our website. In a two-week period in August 2000, the Fire Page received 63,000 queries...No other state or federal website had this information...”

***– Janet Hess-Herbert,
GIS Coordinator
Montana Fish, Wildlife & Parks***



“[Without] current services provided by the Natural Heritage Program...it would take at least four to five additional days to gather information, sort, and compare species data for each project... This would have a major impact on weed management efforts in the state... NHP provides a valuable service to Montana citizens, and is vital to the development of ecologically-based weed management programs.”

***– Celestine Lacey Duncan,
Weed Management Services***

How is NRIS funded?

NRIS receives its funding from a variety of sources. Direct funding for core services — which include maintaining the NRIS clearinghouse and providing general access — comes from the Resource Indemnity Trust, the General Fund, and state agencies to which NRIS provides essential services. NRIS then augments this “core service” funding through interagency partnerships to develop new datasets or data-access tools that benefit all users.

A portion of NRIS’ direct or “core” funding is used to contract with The Nature Conservancy to operate the statutorily mandated Natural Heritage Program. This successful public-private partnership generates further efficiencies, as the Natural Heritage Program leverages state funds with federal and private dollars to help support data collection and dissemination projects.

Contact NRIS

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